

CLAIMS

What is claimed is:

sub AI 1 1. A method for communicating over multiple channels, comprising the steps
2 of:
3 (a) communicating over a first channel;
4 (b) selecting a second channel;
5 (c) selecting a phrase;
6 (d) generating an audible utterance representative of the selected
7 phrase; and
8 (e) providing the audible utterance over the selected second channel.

1 2. The method of Claim 1, wherein the step of selecting a second channel
2 further includes selecting a plurality of channels, and wherein the step of providing
3 the audible utterance over the selected second channel further includes providing
4 the audible utterance over the plurality of selected channels.

1 3. The method of Claim 1, wherein the step of generating an audible utterance
2 includes the step of obtaining an internal representation of a phrase element
3 associated with the selected phrase and generating an audible utterance based on
4 the internal phrase element.

1 4. The method of Claim 1, wherein the step of selecting a second channel
2 includes selecting a graphical representation of said second channel using a

10024982-121801

3 graphical user interface.

1 5. The method of Claim 1, wherein the step of selecting a phrase includes
2 selecting a graphical representation of said phrase using a graphical user interface.

1 6. The method of Claim 5, wherein the graphical representation of said phrase
2 is selected from a group consisting of an icon, a symbol, a figure, a graph, a
3 checkbox, a GUI widget, a graphics button, and a pulldown menu button.

1 7. The method of Claim 1, wherein said internal representation of said
2 selected phrase is obtained from a host computer.

1 8. The method of Claim 1, wherein the step generating an audible utterance
2 includes text-to-speech processing.

1 ~~9.~~ A multi-channel telecommunication system, comprising:

2 (a) an audio input;

3 (b) a channel representation;

4 (c) a phrase representation;

5 (d) a memory for storing the channel representation, phrase
6 representation and phrase element associated with the phrase representation,
7 wherein the phrase element has an internal representation of an audible
8 utterance;

10024982-121801

9 (e) a processor, coupled to the audio input, display and memory,
10 wherein the processor provides a first control signal and a second control
11 signal;

12 (f) an audio generator, coupled to the processor and memory, wherein
13 the audio generator generates an audible utterance responsive to the first
14 control signal and the conversation element; and,

15 (g) a channel selector, coupled to the processor and audio generator,
16 wherein the channel selector selects a channel responsive to the second
17 control signal and provides the audible utterance over the selected channel.

1 10. The multi-channel telecommunication system of Claim 9, wherein said
2 multi-channel telecommunication system is a telephone.

1 11. The multi-channel telecommunication system of Claim 9, wherein the
2 multi-channel telecommunication system further comprises:

3 (h) an audio mixer, coupled to the processor and channel selector,
4 mixing audio received from said channel selector.

1 12. The multi-channel telecommunication system of Claim 9, wherein the
2 phrase representation and channel representation are displayed in a graphic user
3 interface (GUI).

1 13. The multi-channel telecommunication system of Claim 9, wherein the

2 multi-channel telecommunication system further comprises:

3 (h) an audio monitor, coupled to the processor of channel selector,
4 monitoring an audio level received from said channel selector.

1 14. The multi-channel telecommunication system of Claim 9, wherein the
2 channel representation is selected from the group consisting of a text and a label.

1 15. The multi-channel telecommunication system of Claim 9, wherein the
2 internal representation is in a format selected from the group consisting of a sound
3 file, a record or playback, a text and a Musical Instrument Digital Interface
4 ("MIDI") sequence.

1 16. The multi-channel telecommunication system of Claim 9, wherein the
2 internal representation is obtained from a host computer.

1 17. The multi-channel telecommunication system of Claim 9, wherein the first
2 control signal is generated in response to a user selecting the phrase representation
3 and the second control signal is generated in response to a user selecting the
4 channel representation.

1 18. The multi-channel telecommunication system of Claim 9, wherein the
2 phrase representation and channel representation are selected from the group
3 consisting of a button, a switch, a barcode, a label, a glyph, and Braille.

1 ~~19.~~ A system, comprising:

2 (a) a plurality of input channels;

3 (b) a processing device for storing an internal representation of a phrase
4 element; and,

5 (c) a scanning device, coupled with the processing device, for reading a
6 first code associated with the phrase element and for reading a second code
7 associated with at least one of said input channels, wherein the processing
8 device provides an audible utterance over the channel associated with said
9 second code in response to reading the first code and the second code.

1 20. The system of Claim 19, wherein the processing device includes:

2 a channel selection device, for selecting at least one of the plurality of input
3 channels responsive to said second code.

1 21. The system of Claim 19, wherein the scanning device is a barcode scanner.

1 22. The system of Claim 19, wherein the scanning device is a laser scanner.

1 ~~23.~~ A general purpose computing device, comprising:

2 (a) a display, displaying a channel representation and a phrase
3 representation;

4 (b) a memory, storing the channel representation, phrase representation,
5 and a phrase element associated with the phrase representation, wherein the

- 6 phrase element has an internal representation of an audible utterance;
- 7 (c) a processor, coupled to the display and memory, wherein the
- 8 processor generates a first control signal responsive to selection of the
- 9 channel representation and a second control signal response to selection of
- 10 the phrase representation;
- 11 (d) an audio generator, coupled to the processor and memory, wherein
- 12 the audio generator generates an audible utterance responsive to the second
- 13 control signal and the phrase element; and
- 14 (e) a channel selector, coupled to the processor and audio generator,
- 15 wherein the channel selector activates a channel responsive to the first
- 16 control signal and provides the audible utterance over the selected channel.

1 24. The general purpose computing device of Claim 23, wherein the display is a

2 touchscreen display.

1 25. The general purpose computing device of Claim 23, wherein the channel

2 representation and phrase representation are displayed in a Graphic User Interface

3 ("GUI").

1 26. The general purpose computing device of Claim 23, wherein the general

2 purpose computing device is a personal digital assistant.

1 ~~27.~~ A telecommunication infrastructure, comprising:

- 2 (a) a first electronic device, coupled to the telecommunication
3 infrastructure over a first channel;
- 4 (b) a second electronic device, coupled to the telecommunication
5 infrastructure over a second channel;
- 6 (c) a third electronic device, coupled to the telecommunication
7 infrastructure, selecting the first channel or the second channel and
8 selecting a phrase representation; and,
- 9 (d) a processing device, coupled to the telecommunication infrastructure
10 storing:
- 11 1) a phrase element associated with the phrase
12 representation; and,
- 13 2) a software program for providing an audible utterance
14 over the selected first or second channel in response to a selected
15 phrase representation.

1 28. The telecommunication infrastructure of Claim 27, wherein the third
2 electronic device generates an in-band signal in response to a phrase representation
3 selection and a channel representation selection.

1 29. The telecommunication infrastructure of Claim 27, wherein the third
2 electronic device generates an out-of-band signal in response to a phrase
3 representation selection and a channel representation selection.

1 30. The telecommunication infrastructure of Claim 28, wherein the signal is a
2 Dual-Tone Multi Frequency ("DTMF") signal.

1 31. The telecommunications infrastructure of Claim 27, wherein the phrase
2 representation is selected from the group consisting of an icon, a symbol, a figure, a
3 graph, a checkbox, a GUI widget and a graphics button.

1 32. The telecommunications infrastructure of Claim 27, wherein the phrase
2 representation is selected from the group consisting of a text and a label.

1 33. The telecommunication infrastructure of Claim 27, wherein the processing
2 device is a computer coupled to the Internet.

1 34. The telecommunication infrastructure of Claim 27, wherein the processing
2 device is a relay between the first electronic device, the second electronic device,
3 and the third electronic device.

1 35. A method for communicating with a plurality of recipients over a
2 plurality of channels, comprising the steps of:

- 3 (a) Communicating over a first channel with a first recipient;
4 (b) Receiving an indication over a second channel of a second
5 recipient;
6 (c) Selecting a channel for generating an audible utterance;

1009841801 28642007

- 7 (d) Selecting a phrase representation; and,
8 (e) Generating an audible utterance over said selected channel based
9 on said selected phrase representation.

1 36. The method of Claim 35, wherein said audio input from said first and
2 second channel are mixed.

1 37. The method of Claim 35, further including the step of:
2 obtaining an internal representation of a phrase element associated with
3 said selected phrase representation.

1 38. The method of Claim 35, said step of selecting a channel for generating an
2 audible utterance includes the steps of:
3 accessing a channel representation; and,
4 selecting a channel representation.

1 39. The method of Claim 38, wherein said channel representation is displayed
2 on a graphical user interface.

1 40. The method of Claim 35, said step of selecting a phrase for generating an
2 audible utterance includes the steps of:
3 accessing a phrase representation; and,
4 selecting a phrase representation.

- 1 41. The method of Claim 40, wherein said phrase representation is displayed
- 2 on a graphical user interface.

10024982 121301